

Abstract of the Disclosure

RUBBER COMPOSITE CONTAINING IN SITU FORMED FILLER REINFORCEMENT AND ARTICLE, SUCH AS A TIRE, HAVING A COMPONENT COMPRISED THEREOF

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10 This invention relates to a rubber composite made from an elastomer
polymerized on the surface of a silanized filler, a rubber composition containing such
composite and an article such as for example a tire, which has at least one component
comprised of such composition. Such reinforcement is applied by polymerizing a
conjugated diene hydrocarbon in the presence of a filler silanized with an alkenyl
silane. In particular a silanized reinforcing filler is pre-treated with butyl lithium or
peroxide catalyst, preferably with butyl lithium, followed by polymerizing a conjugated
15 diene hydrocarbon in the presence of such treated filler via an anionic or free radical
polymerization in an organic solvent. Such pre-formed elastomer composite is also
contemplated as well as a rubber composition comprised of a blend of such pre-formed
composite and at least one additional elastomer. Such filler may be, for example,
precipitated silica, carbon black and/or a modified carbon black. A tire having a
20 component of such composite or rubber composition such as, for example a tread, is
also provided.

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